



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/535,088	10/05/2005	Luc Forget	OVL0001US	2020
23413 7590 12/23/2010 CANTOR COLBURN LLP 20 Church Street 22nd Floor Hartford, CT 06103				
EXAMINER				
KRUEER, KEVIN R				
ART UNIT		PAPER NUMBER		
1787				
NOTIFICATION DATE		DELIVERY MODE		
12/23/2010		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

usptopatentmail@cantorcolburn.com

Office Action Summary

Application No.

10/535,088

Applicant(s)

FORGET ET AL.

Examiner

KEVIN R. KRUEER

Art Unit

1787

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 November 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) 9-13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 14-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 May 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Correspondence Patent Drawing Review (PTO-940)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/22/2010 has been entered.

Election/Restrictions

2. Applicant's election without traverse of Group I, claims 1-8, in the reply filed on February 26, 2009 is acknowledged.

Priority

3. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

4. The drawings filed May 13, 2005 are accepted.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-7, 14, 15, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hanoka (US 6,114,046) in view of Dewart et al (US 6,114,456) and Hanoka '382 (US 5,733,382).

Hanoka teaches a solar cell module comprising a laminate; the laminate comprises an ionomeric layer, a metallocene catalyzed polyethylene layer, two inner layers of highly transparent material (col 5, lines 2+) such as a metallocene catalyzed polyethylene layer, and an ionomer layer (Figure 1). The ionomeric layer reads on the claimed wear layer and the two polyethylene transparent layers are understood to read on the claimed intermediate and additional layers, respectively. The laminate may further be applied to a substrate such as glass or thermoplastic resin (cols 42+). Said layer may comprise glass fiber-herein understood to read on the claimed mineral filler of claim 15.

Hanoka does not teach the polyethylene transparent layers should comprise the claimed intermediate layer compositions. However, Dewart teaches a composition comprising metallocene catalyzed medium density polyethylene and low density polyethylene in amounts of 30-97.5wt% (abstract; col 6, lines 1+). Said range is understood to anticipate the claimed range since it overlaps the claimed range. Alternatively, it would have been obvious to optimize the amount of LDPE in the composition in order to improve the processability (Table III) and optical properties (background of the invention) of the composition. The composition exhibits excellent transparency and stiffness (Summary of the invention). Thus, it would have been

obvious to utilize the blend of Dewart as the polyethylene transparent layers of Hanoka in order to optimize the transparency, gloss, and stiffness of the laminate.

Hanoka teaches the laminate may be applied to a transparent polymer substrate but does not teach said substrate should comprise a non-ionomeric polyolefin. However, Hanoka'382 teaches replacing traditional glass layer substrates with flexible polyethylene films (col 11, lines 35+). Said replacement increases the laminate's flexibility and decreases its weight (col 12, lines 4+). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize polyethylene as the substrate taught in Hanoka because such polyethylene layers are more flexible and lighter than traditional glass substrates. With regards to claim 3,, Hanoka'382 teaches HDPE is preferred but all polyethylenes are within the scope of said teaching. Furthermore, increased flexibility and weight reduction will be achieved by using LDPE. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize LDPE in order to further reduce the weight and increase flexibility.

7. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hanoka (US 6,114,046) in view of Dewart et al (US 6,114,456) and Hanoka '382 (US 5,733,382), as applied to claims 1-7, 14, 15 and 17 above, and further in view of JP-0923018.

Hanoka is relied upon as above but does not teach a polyurethane layer may be applied to the ionomeric layer. However, JP-018 teaches the application of a polyurethane layer to a solar cell module substrate in order to eliminate the need for

glass layers (see abstract and column 2, lines 30+ of Hanoka). Therefore, it would have been obvious to the skilled artisan at the time the invention was made to add a polyurethane layer to the ionomer layer of Hanoka in order to eliminate the need for glass layers

8. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hanoka (US 6,114,046) in view of Dewart et al (US 6,114,456) and Hanoka '382 (US 5,733,382), as applied to claims 1-7, 14, 15 and 17 above, and further in view of Yamada (US 6,335,479).

Hanoka is relied upon as above but does not teach the use of the enumerated mineral fillers. However, Yamada teaches that the substrate layer may comprise traditional additives such as reinforcing filler (col 8, lines 30+). One of ordinary skill in the art would recognize such additives include the mineral fillers enumerated in claim 18. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the mineral additives of claim 18 to the substrate layer of Hanoka in view of Hanoka'382. The motivation for doing so would have been that Yamada teaches traditional additives such as those enumerated may be added to the substrate layer to improve its properties.

Response to Arguments

Applicant's arguments have been fully considered but are moot in view of the new grounds of rejection. In order to expedite prosecution, the examiner would like to take this opportunity to respond to some of applicant's arguments which may be relevant to the newly applied rejection.

With regards to JP-018, applicant argues there is no reason to apply polyurethane to the film of Hanoka. The examiner respectfully disagrees. Hanoka teaches an upper glass film may be applied to the laminate and JP-018 teaches such glass films may be replaced with a polyurethane layer.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KEVIN R. KRUER whose telephone number is (571)272-1510. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Callie Shosho can be reached on 571-272-1123. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kevin R Krue/

Primary Examiner, Art Unit 1787

Application/Control Number: 10/535,088
Art Unit: 1787

Page 7